



U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: SUPPLEMENTAL WIND CONES

Date: 5/11/90

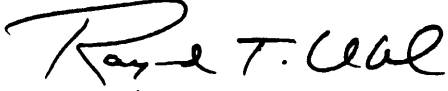
Initiated by: AAS-200 200

AC No: 150/5340-23B

Change:

1. **PURPOSE.** This advisory circular (AC) describes criteria for the location and performance of supplemental wind cones.
 2. **CANCELLATION.** AC 150/5340-23A, Supplemental Wind Cones, dated June 24, 1975, is canceled.
 3. **PRINCIPAL CHANGE.** The prior AC has **been** revised to preclude the installation of supplemental wind cones in runway safety areas. However, it is allowed in the touchdown area of Category II and Category III runways as long as it does not penetrate the obstacle free zone.
 4. **APPLICATION.** The guidance in this AC is recommended for all applications involving supplemental wind cones. The siting and performance criteria specified herein is mandatory for supplemental wind cones which are required by regulation, i.e. FAR Part 139, or funded under the Airport Improvement Program.
 5. **DISCUSSION.** The source of wind information on an airport that is reported to pilots may be 2 to 3 miles from the approach end of a runway. Factors such as topography, approaching fronts or thunderstorms could result in much different wind conditions near runway ends than those reported to pilots from the primary wind information source. Under these conditions, supplemental wind cones are needed to provide pilots a continuing visual indication of wind conditions near the runway ends during landing and take off operations.
 6. **SITING.** The supplemental wind cone should be located near the runway end so that pilots have an unobstructed view during either landing or takeoff operations. Figure 1 shows the preferred area for installing supplemental wind cones. The wind cone may be installed no closer than 250 feet from the runway centerline. If the installed height of the wind cone is more than 16 ²/₃ feet above the runway centerline elevation, it must be farther from the runway to insure that it does not penetrate the obstacle **free** zone (**OFZ**) described in AC 150/5300-13, Airport Design. Because of the functional purpose of the supplemental wind cone, it is permitted in the touchdown area of CAT II and CAT III runways (reference AC 120-29, Appendix 2, paragraph 7), as long as it does not penetrate the **OFZ**. The preferred location is on the left side of the runway when viewed from a landing aircraft. However, it may be located on the right side of the runway where conditions such as the existence of another runway, **taxiway**, apron, terrain problems, or navigational aids preclude its installation on the left side. The proposed location must be coordinated with the local Airway Facilities Office to insure that it will not cause interference with the radiation pattern of any navigational aid facility.
 7. **PERFORMANCE REQUIREMENTS.** Locally fabricated or commercially available supplemental wind cones may be used in lieu of equipment specified in AC 150/5345-27, Specification for Wind Cone Assemblies, provided the following parameters are met:
 - a. The wind cone **shall** be in the form of a truncated cone with a minimum throat diameter of 18 inches and with a length of 5 to 9 feet.
 - b. The wind cone shall move freely about the supporting shaft and indicate true wind direction within 5 degrees at a wind velocity of 5 miles per hour.
 - c. The support structure shall support the wind cone at wind speeds up to 50 mph, yet be lightweight so as to cause minimal damage if struck by an aircraft.
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- d. Lighting, where provided, should adequately illuminate the wind cone so that it is visible from a distance of 1/2 mile at night, yet does not create a glare problem for pilots of aircraft landing or taking off.
- e. The ground around the wind cone structure, within a radius of 10 feet, should be treated to prevent vegetation growth and to provide added contrast with the surrounding area.
- f. The color of the cone fabric may be white, yellow, or orange. All exposed structural parts of the wind cone assembly, except reflecting surfaces of light fixtures, shall be orange.
- g. The installed height of the wind cone should not exceed 10 feet. However, this height may be exceeded where necessary to provide an unobstructed view provided the wind cone does not penetrate the OFZ specified in paragraph 6.



 Leonard E. Mudd
Director, Office of Airport Safety and Standards

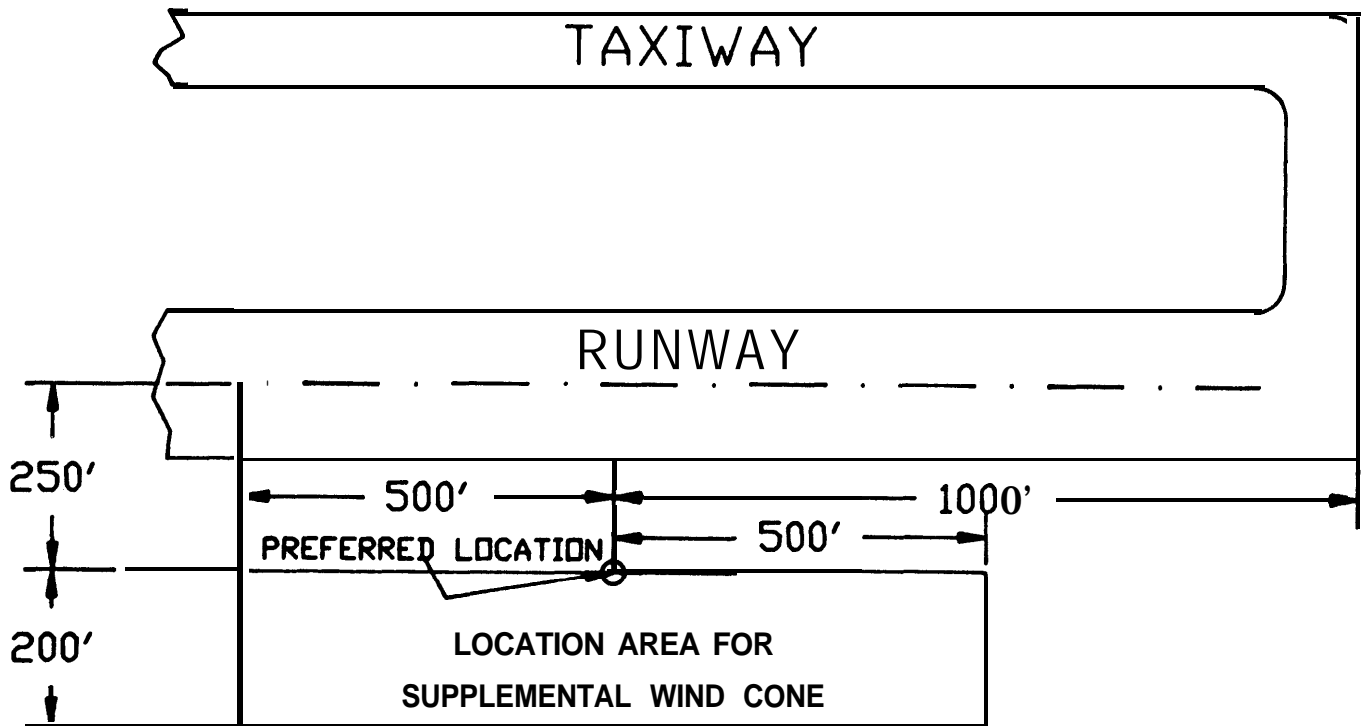


Figure 1. Location of Supplemental Wind Cone